Cytochrome P450 3A mRNA expression along goat and rat gastrointestinal tracts

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Abstract

The cytochrome P450 (CYP) 3A family is involved in the elimination processes of almost 50% of commonly used drugs. CYP3A mRNA expressions in goat and rat gastrointestinal tracts in comparison to the liver were investigated using real-time PCR. In goats, the expression of CYP3A-like mRNAs was comparatively higher in the liver than in the gastrointestinal tract. The intestinal expression of CYP3A-like mRNA showed a gradual decrease from the duodenum to the ileum. In rats, the highest CYP3A62 mRNA expression was found in the duodenum followed by the liver. This study provides insights into the contribution of CYP3A enzymes to xenobiotic metabolism, especially in small ruminants such as goats.